#6

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	<u>/o/520,783.</u>
Source:	Pulio
Date Processed by STIC:	1/19/65
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ENTERED



PCT

RAW SEQUENCE LISTING DATE: 01/19/2005 PATENT APPLICATION: US/10/520,783 TIME: 12:00:55

Input Set : A:\3083us0p.seq.txt

3 <110> APPLICANT: MATSUZAWA, Yuji

```
4
             FUNAHASHI, Toru
      5
             SHIMOMURA, Iichirou
             FURUYAMA, Naoki
      8 <120> TITLE OF INVENTION: Novel Proteins and Use Thereof
     10 <130> FILE REFERENCE: 3083USOP
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/520,783
C--> 12 <141> CURRENT FILING DATE: 2005-01-10
     12 <150> PRIOR APPLICATION NUMBER: PCT/JP03/08690
     13 <151> PRIOR FILING DATE: 2003-07-09
     15 <150> PRIOR APPLICATION NUMBER: JP 2002-201856
     16 <151> PRIOR FILING DATE: 2002-07-10
     18 <160> NUMBER OF SEQ ID NOS: 48
     20 <170> SOFTWARE: PatentIn version 3.1
     22 <210> SEQ ID NO: 1
     23 <211> LENGTH: 1836
     24 <212> TYPE: DNA
     25 <213> ORGANISM: Mus musculus
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     28 <221> NAME/KEY: CDS
     29 <222> LOCATION: (1)..(1833)
     30 <223> OTHER INFORMATION:
     32 <220> FEATURE:
     33 <221> NAME/KEY: sig peptide
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     35 <223> OTHER INFORMATION:
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     38 <221> NAME/KEY: mat peptide
     39 <222> LOCATION: (70)..()
    40 <223> OTHER INFORMATION:
W--> 42 <220>
     43 <221> NAME/KEY: misc_feature
     44 <222> LOCATION: (798)..(798)
     45 <223 > OTHER INFORMATION: 'n' stands for unidentified base.
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                                                                               48
     50 Met Ala Gly Ser Arg Gly Leu Pro Leu Leu Leu Val Leu Gln Leu
    51
                    -20
                                        -15
    53 ttc ctg ggc cct gtg ctg cct gtg agg gca cct gtg ttt ggc cga agt
     54 Phe Leu Gly Pro Val Leu Pro Val Arg Ala Pro Val Phe Gly Arg Ser
                                -1 1
    57 gac acc ccc acc ctg agc ccc gag gag aat gaa ttt gtg gag gaa gag
     58 Asp Thr Pro Thr Leu Ser Pro Glu Glu Asn Glu Phe Val Glu Glu Glu
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RAW SEQUENCE LISTING DATE: 01/19/2005 PATENT APPLICATION: US/10/520,783 TIME: 12:00:55

Input Set : A:\3083us0p.seq.txt

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	67				45					50					55				
							att											288	
		Val	Asp	_	Gly	Gly	Ile	Asp		Arg	Glu	Phe	Pro	_	Asp	Leu	Pro		
	71			60					65					70					
							ctc											336	
		GIu		Thr	Asn	His	Leu		Leu	GIn	Asn	Asn		Leu	GIu	ьуs	11e		
	75		75					80					85					204	
							tcc											384	
			Pro	GIU	GIU	ьeu	Ser	Arg	ьeu	GIN	Arg		GIU	Thr	ьeu	Asn	ьец 105		
	79		224	224		a+~	95	t a a	~~~	~~~	ata	100	~~~	~~~	~~~	+++		432	
							aca Thr											432	
	83	GIII	ASII	ASII	Arg	110	1111	Ser	Arg	Gry	115	PLO	Giu	GIU	AIG	120	Gru		
		ast	att	act	200		aat	tac	ata	tac		acc	220	220	220		202	480	
							Asn											100	
	87	*****	ПСС		125		11011	- 1 -		130					135				
		cta	gca	ccc		ttc	ctg	cca	aac		cta	atc	agt.	ata		ttt	act.	528	
							Leu												
	91			140				-	145					150	•				
	93	qcc	aat	tat	ctc	act	aag	atc	tat	gga	ctc	acc	ttt	ggc	caa	aag	cca	576	
		_					Lys									-			
	95		155	_			_	160	_	_			165	_		-			
	97	aat	ctg	agg	tct	gtg	tac	ctg	cat	aac	aac	aag	cta	gca	gat	gcc	999	624	
	98	Asn	Leu	Arg	Ser	Val	Tyr	Leu	His	Asn	Asn	Lys	Leu	Ala	Asp	Ala	Gly		
	99	170					175					180					185		
																	a atc	672	2
			ı Pro	o Asp) His			Asr	ı Gly	, Sei			ı Val	l Gli	ı Ile		ı Ile		
	103					190					195	_				200			_
																	gct	720)
			ı Sei	r Ser			e Leu	Arg	, His			о ГА	5 His	s Let			o Ala		
	107				205					210					215			7.0	_
																	cct	768	3
			_	_			з цет	_			_	s ner		л пу: 230		PIC	o Pro		
TAT >					·					•								816	_
W>																	n Asn	010	,
	115	_	235		: Ser	GIC	т пео	240		пес	, MI	g GI	245	_	. шес	. 611	I ASII		
					1 200	gad	י מפט			r dad	. aac	r dad			tac	ı aad	g ctg	864	4
																	s Leu		-
		250				1101	255					260				1.	265		
				e ete	gac	tar			tto	tec	ago			cto	tco	aaa	ggtc	912	2
			-				_	_	-		_			-	_		y Val		
	123					270		F			275					280			

RAW SEQUENCE LISTING DATE: 01/19/2005
PATENT APPLICATION: US/10/520,783 TIME: 12:00:55

Input Set : A:\3083us0p.seq.txt

						cgc											960
126	Pro	Ala	Gly	Leu	Pro	Arg	Ser	Leu	Val	Leu	Leu	His	Leu	Glu	Lys	Asn	
127				285					290					295			
129	gcc	atc	cag	agc	gta	gaa	gct	gat	gtg	ctg	aca	CCC	atc	cgc	aac	ctg	1008
130	Ala	Ile	Gln	Ser	Val	Glu	Ala	Asp	Val	Leu	Thr	Pro	Ile	Arg	Asn	Leu	
131			300					305					310				
						cat											1056
134	Glu	Tyr	Leu	Leu	Leu	His	Ser	Asn	Gln	Leu	Gln	Ala	Lys	Gly	Ile	His	
135		315					320					325					
						ggc											1104
138	Pro	Leu	Ala	Phe	Gln	Gly	Leu	Lys	Lys	Leu	His	Thr	Val	His	Leu	Tyr	
139	330					335					340					345	
141	aac	aac	gcg	ctg	gaa	cgt	gtg	CCC	agc	ggc	ctg	CCC	cgc	cga	gtg	cgc	1152
142	Asn	Asn	Ala	Leu	Glu	Arg	Val	Pro	Ser	Gly	Leu	Pro	Arg	Arg	Val	Arg	
143					350					355					360		
						cac											1200
146	Thr	Leu	Met	Ile	Leu	His	Asn	${\tt Gln}$	Ile	Thr	Gly	Ile	Gly	Arg	Glu	Asp	
147				365					370					375			
149	ttc	gct	acc	acc	tac	ttc	ctg	gaa	gag	ctc	aac	ctc	agc	tac	aac	cgc	1248
150	Phe	Ala	Thr	Thr	Tyr	Phe	Leu	Glu	Glu	Leu	Asn	Leu	Ser	Tyr	Asn	Arg	
151			380					385					390				
153	atc	acc	agc	cca	cag	atg	cac	cga	gat	gcc	ttc	cgc	aag	cta	cgc	ctg	1296
154	Ile	Thr	Ser	Pro	Gln	Met	His	Arg	Asp	Ala	Phe	Arg	Lys	Leu	Arg	Leu	
155		395					400					405					
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158	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Gln	Thr	Leu	Pro	Pro	
	410					415					420					425	
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162	Gly	Leu	Pro	Lys	Asn	Val	His	Val	Leu	Lys	Val	Lys	Arg	Asn		Leu	
163			•		430					435					440		
						999											1440
	Ala	Ala	Leu		Arg	Gly	Ala	Leu		Gly	Met	Ala	Gln		Arg	GIu	
167				445					450					455			
						aac											1488
	Leu	Tyr		Thr	Gly	Asn	Arg		Arg	Ser	Arg	Ala		GIY	Pro	Arg	
171			460			<i>.</i>		465					470				
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	Ala		Val	Asp	Leu	Ala		Leu	GIn	Leu	Leu		He	Ala	GIY	Asn	
175		475					480					485					1504
						cct											1584
		Leu	Thr	GIu	Val	Pro	GIu	GIY	Leu	Pro		Ser	Leu	GIU	туr		
	490					495					500					505	1633
						aag											1632
	туг	ьeu	GIN	Asn		Lys	тте	ser	АТА		Pro	ATG	ASI	ATG		Asp	
183					510			- H -		515					520	~~ <u>+</u>	1.000
						aag											1680
		Inr	Pro		ьeu	Lys	сту	тте		ьeu	Arg	File	ASII	ьуs 535	ьeu	WIG	
187			L	525					530			a+ ~		- '	a+~	a	1728
189	gtg	ggc	CCC	gtg	gtg	gaa	agc	gcc	ttc	cgg	agg	ccg	aaa	cac	ccg	cag	1/28

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PATENT APPLICATION: US/10/520,783 TIME: 12:00:55

Input Set : A:\3083us0p.seq.txt

100	Val	Gly	Sor	17a 1	Val	Glu	Sar	Δla	Dhe	Δτα	Ara	T.011	Lvc	ніс	T.e.11	Gln	
191		Gry	540	Vai	vai	GIU	SCI	545	rne	m g	my	шси	550	1113	ДСС	0111	
	gtc	tta		att	qaa	aac	aac		qaq	ttt	qqt	aat		tcc	aaq	qac	1776
	Val																
195		555	-			•	560				-	565	-		-	_	
197	aaa	gat	gag	gaa	gag	gaa	gaa	gag	gag	gaa	gag	gaa	gat	gag	gaa	gag	1824
	Lys																
199	570	_				575					580		_			585	
201	. gaa	act	aga	tag													1836
202	Glu	Thr	Arg														
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		<213> ORGANISM: Mus musculus															
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214				-20	-	_	_		-15		_			-10	_	_	
	Phe	Leu	_	Pro	Val	Leu			Arg	Ala	Pro		Phe	GIA	Arg	Ser	
218			-5	 1		a	-1	1	~ 1	•	~1	5	**- 3	~1	~1	01	
	Asp	Thr	Pro	Thr	Leu		Pro	GIU	GIU	Asn		Pne	vai	GIU	GIU		
	l 10 Asn	~1 _~	Dwa	7707	T 011	15	T 011	Cor	Cor	C111	20	Dro	C111	Dro	C1**	25 Pro	
226		GIII	PIO	val	30	vai	Leu	ser	ser	35	GIU	PIO	GIU	PIO	40	PIO	
) Ala	Thr	Val	Δen		Pro	Δra	Aen	Cvc		Cvc	Ser	Gln	Glu		Val	
230		1111	VUI	45	Cys	110	my	пор	50	nru	Cys	DCI	0111	55	0-1	·uı	
	Val	Asp	Cvs		Glv	Ile	Asp	Leu		Glu	Phe	Pro	Glv		Leu	Pro	
234			60	1	0-1			65	5				70				
	Glu	His		Asn	His	Leu	Ser	Leu	Gln	Asn	Asn	Gln	Leu	Glu	Lys	Ile	
238		75					80					85			-		
241	Tyr	Pro	Glu	Glu	Leu	Ser	Arg	Leu	Gln	Arg	Leu	Glu	Thr	Leu	Asn	Leu	
242	90					95					100					105	
245	Gln	Asn	Asn	Arg	Leu	Thr	Ser	Arg	Gly	Leu	Pro	Glu	Glu	Ala	Phe	Glu	
246	5				110					115					120		
	His	Leu	Thr		Leu	Asn	Tyr	Leu	_	Leu	Ala	Asn	Asn	_	Leu	Thr	
250				125					130					135		_	
	Leu	Ala		Arg	Phe	Leu	Pro		Ala	Leu	Ile	Ser		Asp	Phe	Ala	
254		_	140	_	1	_		145	~1	<u> </u>	1	-1	150	~1		D	
	Ala		Tyr	Leu	Thr	Lys		Tyr	GIY	Leu	Thr		GLY	GIn	гуѕ	Pro	
258		155		0	**- 1	m	160	***	3	3	T	165	77-	N	77-	G1	
	Asn	ьeu	Arg	ser	vaı	_	ьeu	HIS	Asn	Asn		Leu	Ala	Asp	Ala	185	
	170 Leu	Dwo	7 ~~	uic	Mot	175	7 02	C1	C0~	Co~	180	v-1	C1.,	т1 о	T 011		
266		PIO	Asp	птр	190	Pne	ASII	GIA	ser	195	ASII	vai	GIU	116	200	116	
	Leu	Ser	Ser	Δcn		I.e.i	Δra	His	Val		Lvs	His	T.e.u	Pro		Ala	
270		501	JCI	205		u	9		210		~,5	0		215			
	Leu	Tvr	Lvs		His	Leu	Lvs	Asn		Lvs	Leu	Glu	Lvs		Pro	Pro	
274		-1-	220				-1-	225		_1 =			230				
	Gly	Ala		Ser	Glu	Leu	Ser		Leu	Arq	Glu	Leu		Leu	Gln	Asn	
278	_	235	_				240					245	•				

RAW SEQUENCE LISTING DATE: 01/19/2005
PATENT APPLICATION: US/10/520,783 TIME: 12:00:55

Input Set : A:\3083us0p.seq.txt

Output Set: N:\CRF4\01192005\J520783.raw

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281 Asn Tyr Leu Thr Asp Glu Gly Leu Asp Asn Glu Thr Phe Trp Lys Leu
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                                           260
285 Ser Ser Leu Glu Tyr Leu Asp Leu Ser Ser Thr Asn Leu Ser Arg Val
                                       275
                   270
289 Pro Ala Gly Leu Pro Arg Ser Leu Val Leu His Leu Glu Lys Asn
               285
                                   290
293 Ala Ile Gln Ser Val Glu Ala Asp Val Leu Thr Pro Ile Arg Asn Leu
                               305
297 Glu Tyr Leu Leu His Ser Asn Gln Leu Gln Ala Lys Gly Ile His
                           320
298 315
301 Pro Leu Ala Phe Gln Gly Leu Lys Lys Leu His Thr Val His Leu Tyr
                                           340
                       335
305 Asn Asn Ala Leu Glu Arg Val Pro Ser Gly Leu Pro Arg Arg Val Arg
                                       355
                   350
309 Thr Leu Met Ile Leu His Asn Gln Ile Thr Gly Ile Gly Arg Glu Asp
               365
                                   370
313 Phe Ala Thr Thr Tyr Phe Leu Glu Glu Leu Asn Leu Ser Tyr Asn Arg
                                385
317 Ile Thr Ser Pro Gln Met His Arg Asp Ala Phe Arg Lys Leu Arg Leu
                           400
321 Leu Arg Ser Leu Asp Leu Ser Gly Asn Arg Leu Gln Thr Leu Pro Pro
                       415
                                           420
325 Gly Leu Pro Lys Asn Val His Val Leu Lys Val Lys Arg Asn Glu Leu
                                       435
                   430
329 Ala Ala Leu Ala Arg Gly Ala Leu Ala Gly Met Ala Gln Leu Arg Glu
                               、 450
333 Leu Tyr Leu Thr Gly Asn Arg Leu Arg Ser Arg Ala Leu Gly Pro Arg
                                                   470
    460
                               465
337 Ala Trp Val Asp Leu Ala Gly Leu Gln Leu Leu Asp Ile Ala Gly Asn
                           480
341 Gln Leu Thr Glu Val Pro Glu Gly Leu Pro Pro Ser Leu Glu Tyr Leu
                                           500
345 Tyr Leu Gln Asn Asn Lys Ile Ser Ala Val Pro Ala Asn Ala Phe Asp
349 Ser Thr Pro Asn Leu Lys Gly Ile Phe Leu Arg Phe Asn Lys Leu Ala
                                   530
               525
353 Val Gly Ser Val Val Glu Ser Ala Phe Arg Arg Leu Lys His Leu Gln
                               545
357 Val Leu Asp Ile Glu Gly Asn Phe Glu Phe Gly Asn Gly Ser Lys Asp
                           560
361 Lys Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Asp Glu Glu Glu
362 570
                       575
                                           580
365 Glu Thr Arg
369 <210> SEQ ID NO: 3
370 <211> LENGTH: 480
371 <212> TYPE: DNA
372 <213> ORGANISM: Mus musculus
374 <220> FEATURE:
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375 <221> NAME/KEY: CDS

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/19/2005
PATENT APPLICATION: US/10/520,783 TIME: 12:00:56

Input Set : A:\3083us0p.seq.txt

Output Set: N:\CRF4\01192005\J520783.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 798

Seq#:23; N Pos. 633,680,682

Seq#:25; N Pos. 662

Seq#:27; N Pos. 325,329

Seq#:29; N Pos. 605

Seq#:30; N Pos. 589

VERIFICATION SUMMARYDATE: 01/19/2005PATENT APPLICATION: US/10/520,783TIME: 12:00:56

Input Set : A:\3083us0p.seq.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:37 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:30
L:42 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:35
L:48 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:40
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:768
L:384 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:377
L:389 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:382
L:389 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3, Line#:387
L:493 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5, Line#:486
L:498 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5,Line#:491
L:498 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5,Line#:496
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L:711 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:704
L:711 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:709
L:903 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9, Line#:896
L:908 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:901
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L:2028 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:21,Line#:2026
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M:341 Repeated in SeqNo=23
L:2675 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:660
L:2751 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:300
L:2827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:600
L:2870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:540
L:3094 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:47
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